

WHAT IS CLAIMED IS:

1. A wellbore fluid, comprising
a viscoelastic surfactant (VES) comprising a hydrophobic portion and a
5 hydrophilic portion; and
a high brine carrier fluid comprising an inorganic salt, wherein the carrier fluid
has a density of at least 10 lb/gal.
2. The fluid of claim 1, wherein the hydrophobic portion of the VES comprises a
10 saturated or unsaturated alkyl chain having 22 or fewer carbon atoms.
3. The fluid of claim 1, wherein the hydrophilic portion of the VES is nonionic or
zwitterionic.
- 15 4. The fluid of claim 1, wherein the hydrophobic portion of the VES comprises a
saturated or unsaturated alkyl chain having 22 or fewer carbon atoms and the hydrophilic
portion of the VES is nonionic or zwitterionic.
5. The fluid of claim 4, wherein the VES comprises a betaine moiety and an oleic acid
20 moiety.
6. The fluid of claim 1, further comprising a cosurfactant.
7. The fluid of claim 6, wherein the cosurfactant is sodium dodecabenzenesulfonate
25 (SDBS).
8. The fluid of claim 1, wherein the inorganic salt is an alkaline earth halide.
9. The fluid of claim 8, wherein the alkaline earth halide is calcium chloride or calcium
30 bromide.

10. The fluid of claim 1, further comprising at least one additive selected from emulsifiers, surface active agents, viscosifiers, filtration control agents, or density increasing agents.
- 5 11. The fluid of claim 1, further comprising a proppant.
12. The fluid of claim 11, further comprising at least one additive selected from breakers, surfactants, breaker aids, anti-foam agents, scale inhibitors, bactericides, or proppant flowback inhibitors.
- 10 13. The fluid of claim 1, further comprising gravel or sand having a mesh size between 10 and 60 U.S. Standard Sieve Series mesh.
14. The fluid of claim 13, further comprising at least one additive selected from corrosion
15 inhibitors, scale inhibitors, biocides, or leak-off agents.
15. A method of drilling a well, comprising:
providing a drilling fluid, comprising a viscoelastic surfactant (VES), and a high brine
carrier fluid comprising an inorganic salt, wherein the density of the carrier fluid is at least 10
20 lb/gal;
injecting the fluid into a wellbore in which is acting a drilling bit; and
removing cuttings from around the drilling bit with the drilling fluid.
16. A method of fracturing a subterranean formation, comprising:
25 providing a fracturing fluid, comprising a viscoelastic surfactant (VES), a high brine
carrier fluid comprising an inorganic salt wherein the density of the carrier fluid is at least 10
lb/gal, and a proppant; and
injecting the wellbore completion fluid into the formation at a pressure sufficient to
fracture the formation.
- 30 17. A method of placing a gravel pack in a formation, comprising:
providing a wellbore completion fluid, comprising a viscoelastic surfactant (VES), a
high brine carrier fluid comprising an inorganic salt wherein the density of the carrier fluid is

at least 10 lb/gal, and gravel or sand having a mesh size between 10 and 60 U.S. Standard Sieve Series mesh; and

injecting the wellbore completion fluid into the formation adjacent to the wellbore, to produce emplaced gravel or sand.

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18. The method of claim 17, wherein the formation has a temperature less than about 260°F.